

REMARKS

Reconsideration and allowance are respectfully requested. Claims 1, 2, 5, 6, and 9-11 have been amended. Claim 8 has been canceled. Claims 1-7 and 9-20 are pending with claims 15-20 being withdrawn from further consideration.

The objection to claim 2 has been corrected by claiming unmolding.

Claims 1, 2, 4, 7, 11 and 12 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Shulman, 03/952. Claim 1 has been amended to include subject matter of claim 8. Thus, this rejection is moot.

Claims 3 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over 03/592 and further in view of Bhanja & Sengupta. Claim 14 stands rejected as being obvious over 03/592 in view of Alsayed. These claims depend from claim 1 and are considered to be allowable for the reasons presented below regarding claim 1 and, for the additional reason, that the added subject matter thereof is not taught or suggested by the prior art of record.

Claims 5, 6, 8, 9 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over 03/592. With respect to claim 8, this rejection is respectfully traversed.

Claim 1 has been amended to include subject matter of claim 8. In particular, claim 1 as amended recites hydrating the crushed mortar by another cure during a certain cure duration. Claim 1 has also been amended to recite "crushing said mortar to obtain manufactured aggregates of size lying in the range 2 mm to 15 mm so as to obtain a degree of roughness".

03/592 discloses (in paragraph 4) an aggregate production method comprising a curing step followed by a crusting step. 03/592 represents the state of the art regarding the manufacture of such artificial aggregates at the time the invention was made. 03/592 does not disclose or suggest how the curing step should be made, nor about another cure after the crushing step. Thus, 03/592 fails to disclose or suggest the additional curing step as claimed. It is well settled that each and every claim limitation

must be taught or suggested. As specified in MPEP §2143.03, entitled “**All Claim Limitations Must Be Taught or Suggested**”: “To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). ‘All words in a claim must be considered in judging the patentability of that claim against the prior art.’ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” MPEP §2143.03 at 2100-131 (Rev. 5, Aug. 2006).

Applicant submits that the Examiner is improperly employing hindsight in concluding that it would have been obvious to provide additional curing after the crushing step. It is well settled that the content of the prior art (and any *interpretation* of the prior art) must be determined at the time the invention was made to avoid hindsight. See MPEP 2141.01(III), Rev. 6, Sept. 2007, at page 2100-121: “It is difficult but necessary that the decisionmaker forget what he or she has been taught ... about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art ”(*quoting Gore v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert denied*, 469 US 851 (1984)).

Applicant submits that there is no suggestion or motivation in the prior art of record to perform an additional curing step after the crushing of the mortar. Applicant submits that adding another cure after the crushing cannot be considered an obvious modification of the straight forward, two-step method of 03/592. Applicant further submits that the claimed additional curing step complicates the method disclosed in 03/592 and would be avoided by a person trying to optimize an aggregate manufacturing method.

Lastly, the well known objective of cures is to increase the resistance of the concrete. There is no obvious connection between a highly-resistant concrete and a concrete that would be suitable for making aggregates of high roughness. Accordingly, there is nothing obvious in adapting mechanical resistance parameters of the cementitious matrix (number and schedule of cure (s), when a high roughness is sought.

In fact, 03/592 deals with regular concrete aggregates (though artificial); but it

does not deal at all with the problem solved by the claimed method of producing low cost, high-roughness, long-lasting artificial aggregates.

To achieve this objective, when the motor is crushed, it is important that the breaks do not appear within the incursions themselves (see the Specification at page 3, lines 15 to page 4, line 6), but at the junction between the inclusion and the matrix (the second material) so as to obtain a high degree of roughness. 03/592 does not address this because in 03/592, the aggregates are mainly made to become concrete components, and there is no requirement of a high roughness of the aggregates, as in the claimed invention.

With the claimed invention, this result is achieved because the crushing takes place when the cure is "*consolidated just enough to ensure firstly that the inclusions-adhere sufficiently to the matrix to avoid them becoming separated during crushing, and secondly to ensure that the breaks obtained during crushing serve to reveal an appearance that is rough*" (see Specification at page 3, lines 26-30).

The short curing time before crushing is made possible without weakening the aggregates because of the fact that an additional cure is performed after crushing, whereby the curing time before crushing may be kept low.

For the reasons advanced above, claim 1 and the claims that depend there-from are considered to be allowable over the prior art of record and a Notice to that effect is earnestly solicited.

To the extend necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper including any missing or insufficient fees under 37 C.F.R. 1.17(a) to Deposit Account 50-0687, under order No. 62-391, and please credit any excess fees to such deposit account.

Respectfully submitted,



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